

What we claim is:

1. A gonioscopic lens system which provides a real image of the anterior chamber angle of a patient's eye, comprising:
 - (a) a first lens group having a concave posterior surface configured to be placed on a patient's eye;
 - (b) a second lens group optically aligned with said first lens group; and
 - (c) a stop positioned between said first and second lens groups.
2. The gonioscopic lens system of claim 1, wherein said first and second lens groups each comprise a plurality of lens elements, and further wherein said lens elements are formed from at least two different types of glass having differing optical properties, such that said lens system is achromatic.
3. The gonioscopic lens system of claim 2, wherein said first lens group includes a convex anterior surface located adjacent said second lens group.
4. The gonioscopic lens system of claim 3, wherein said second lens group comprises a bi-convex lens group.
5. The gonioscopic lens system of claim 4, wherein said second lens group comprises a bi-convex lens group comprising a doublet component consisting of a bi-convex lens element and a meniscus lens element.
6. The gonioscopic lens system of claim 5, wherein said meniscus lens element is negatively powered, and said bi-convex lens element of said doublet is cemented to said meniscus lens element.
7. The gonioscopic lens system of claim 2, wherein said first and second lens groups are positioned in a spaced-apart relationship.

8. The gonioscopic lens system of claim 7, wherein said first lens group comprises a bi-concave contact lens element and a bi-convex lens subgroup, wherein said bi-convex lens subgroup includes at least two materials having different optical properties.
9. The ophthalmoscopy lens system of claim 9, wherein said bi-convex lens subgroup of said first lens group comprises a bi-convex lens element and a meniscus lens element.
10. The gonioscopic lens system of claim 9, wherein said bi-convex lens subgroup comprises a bi-convex lens element and a meniscus lens element positioned in a spaced-apart relationship.
11. An achromatic gonioscopic lens system which provides a real image of the anterior chamber angle of a patient's eye, comprising:
- (a) a first lens group comprising a bi-convex lens subgroup, and a bi-concave contact lens element having a concave posterior surface configured to be placed on a patient's eye, wherein said bi-convex lens subgroup includes at least two materials having different optical properties; and
 - (b) a second lens group optically aligned with said first lens group.
12. An ophthalmoscopy lens system for viewing both the anterior chamber angle and the retina of a patient's eye, comprising:
- (a) a first lens group having a concave posterior surface configured to be placed on a patient's eye; and
 - (b) a second lens group optically aligned with said first lens group, wherein said second lens group includes a hole extending through the thickness of said second lens group along the optical axis of the ophthalmoscopy lens system;

wherein the ophthalmoscopy lens system may be used to not only provide an image of a patient's anterior chamber angle but also to provide a direct view of a patient's retina through said hole in said second lens system.

13. The ophthalmoscopy lens system of claim 12, wherein the interior walls of said hole are opaque.

14. The ophthalmoscopy lens system of claim 12 wherein said first lens group includes a hole extending from the anterior surface of said first lens group along the optical axis thereof, through a portion of said first lens group.

15. The ophthalmoscopy lens system of claim 12, wherein said first lens group includes a convex anterior surface located adjacent said second lens group.

16. The ophthalmoscopy lens system of claim 15, wherein said second lens group comprises a bi-convex lens group.

17. The ophthalmoscopy lens group of claim 16, wherein said second lens group comprises a bi-convex lens group comprising a doublet component consisting of a bi-convex lens element and a meniscus lens element.

18. The ophthalmoscopy lens system of claim 17, wherein said meniscus lens element is negatively powered, and said bi-convex lens element of said doublet is cemented to said meniscus lens element.

19. The ophthalmoscopy lens system of claim 15, wherein said first and second lens groups are positioned in a spaced-apart relationship.

20. The ophthalmoscopy lens system of claim 19, wherein said first lens group comprises a bi-concave contact lens element and a bi-convex lens subgroup, wherein said bi-convex lens subgroup includes at least two materials having different indices of refraction.

21. The ophthalmoscopy lens system of claim 20, wherein said bi-convex lens subgroup comprises a bi-convex lens element and a meniscus lens element.

22. The ophthalmoscopy lens system of claim 21, wherein said bi-convex lens subgroup comprises a bi-convex lens element and a meniscus lens element positioned in a spaced-apart relationship.